

§§ 193.2323–193.2329 [Reserved]

§ 193.2443 [Reserved]

Subpart E—Equipment

§ 193.2401 Scope.

After March 31, 2000, each new, replaced, relocated or significantly altered vaporization equipment, liquefaction equipment, and control systems must be designed, fabricated, and installed in accordance with requirements of this part and of ANSI/NFPA 59A. In the event of a conflict between this part and ANSI/NFPA 59A, this part prevails.

[Amdt. 193–17, 65 FR 10960, Mar. 1, 2000]

VAPORIZATION EQUIPMENT

§§ 193.2403–193.2439 [Reserved]

§ 193.2441 Control center.

Each LNG plant must have a control center from which operations and warning devices are monitored as required by this part. A control center must have the following capabilities and characteristics:

- (a) It must be located apart or protected from other LNG facilities so that it is operational during a controllable emergency.
- (b) Each remotely actuated control system and each automatic shutdown control system required by this part must be operable from the control center.
- (c) Each control center must have personnel in continuous attendance while any of the components under its control are in operation, unless the control is being performed from another control center which has personnel in continuous attendance.
- (d) If more than one control center is located at an LNG Plant, each control center must have more than one means of communication with each other center.
- (e) Each control center must have a means of communicating a warning of hazardous conditions to other locations within the plant frequented by personnel.

§ 193.2445 Sources of power.

(a) Electrical control systems, means of communication, emergency lighting, and firefighting systems must have at least two sources of power which function so that failure of one source does not affect the capability of the other source.

(b) Where auxiliary generators are used as a second source of electrical power:

- (1) They must be located apart or protected from components so that they are not unusable during a controllable emergency; and
- (2) Fuel supply must be protected from hazards.

Subpart F—Operations

SOURCE: Amdt. 193–2, 45 FR 70405, Oct. 23, 1980, unless otherwise noted.

§ 193.2501 Scope.

This subpart prescribes requirements for the operation of LNG facilities.

§ 193.2503 Operating procedures.

Each operator shall follow one or more manuals of written procedures to provide safety in normal operation and in responding to an abnormal operation that would affect safety. The procedures must include provisions for:

- (a) Monitoring components or buildings according to the requirements of § 193.2507.
- (b) Startup and shutdown, including for initial startup, performance testing to demonstrate that components will operate satisfactory in service.
- (c) Recognizing abnormal operating conditions.
- (d) Purging and inerting components according to the requirements of § 193.2517.
- (e) In the case of vaporization, maintaining the vaporization rate, temperature and pressure so that the resultant gas is within limits established for the vaporizer and the downstream piping;
- (f) In the case of liquefaction, maintaining temperatures, pressures, pressure differentials and flow rates, as applicable, within their design limits for: